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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,103	02/05/2004	Daniel G. Howard	ECD-0014CIP	3970
29344	7590	01/22/2009		
MILLS & ONELLO LLP ELEVEN BEACON STREET SUITE 605 BOSTON, MA 02108			EXAMINER DOAN, TRANG T	
			ART UNIT	PAPER NUMBER
			2431	
			MAIL DATE	DELIVERY MODE
			01/22/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/773,103	<b>Applicant(s)</b> HOWARD ET AL.	
	<b>Examiner</b> TRANG DOAN	<b>Art Unit</b> 2431	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,10-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,10-14 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This action is in response to the amendment filed on 11/10/2008.
2. Claims 1 and 10 have been amended.
3. Claims 6, 8-9, 15 and 17-18 have been canceled.
4. Claims 1-5, 7, 10-14 and 16 are pending for consideration.

### ***Continued Examination Under 37 CFR 1.114***

5. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/10/2008 has been entered.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-5, 7, 10-14 and 16 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5, 7, 10-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson (US 6477124) (hereinafter Carson) in view of Atkinson (US 6694451) (hereinafter Atkinson).

Regarding claim 1, Carson discloses a method for determining the presence of an anomaly region corresponding to a data segment of the digital medium comprising: performing multiple read operations on a data segment of the medium to generate multiple corresponding read data results (Carson: see figure 3, figure 9 and column 2 lines 59-67: continuous read process will provide the second data at a different, nominal data rate as compared to the rate for an authorized disc); calculating based on data values for each of the multiple read data results (Carson: see figure 9, column 2 lines 59-67, column 8 lines 7-32 and column 9 lines 14-20 and lines 40-50, i.e. data rate profile stores different data rates and used for disc authentication purposes); determining whether an anomaly region is present in the data segment based on comparison (Carson: see figure 9, column 5 lines 7-39, column 7 lines 7-26 and column 8 lines 33-43: such as intentional errors placed at selected locations to provide copy protection for the disc) and authenticating the medium in response to the determination of the presence of the anomaly region (Carson: column 5 lines 7-18 and column 8 lines 15-43).

Carson does teach about calculating different data rates from multiple read operations and determine the anomaly region based on the calculation of the multiple

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read operations. However, Carson does not explicitly disclose in details about calculating digital signatures using actual data values of underlying data of the read data segment for each of the multiple read data results. Atkinson on the other hand discloses calculating digital signatures using actual data values of underlying data of the read data segment for each of the multiple read data results (Atkinson: column 4 lines 34-51, column 9 lines 44-58 and column 12 lines 46-67). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the process of creating the digital signature for each read operation of Atkinson to the system of Carson invention to provide the validation of data that has been stored in random access memory during periods when the data is susceptible of becoming corrupted, or in mission critical computer systems where tolerance for error is low (Atkinson: column 1 lines 16-22).

Regarding claim 2, Carson as modified discloses wherein the data comprises data selected from the group consisting of: user data, error data, sync data, parity data, header data, and sub-channel data (Carson: see figure 1, ref. 108).

Regarding claim 3, Carson as modified discloses monitoring a transfer rate of the read data during at least one of the read procedures, and further determining whether an anomaly region is present in the data segment based on the monitored transfer rate (Carson: see figure 2, figure 4, column 2 lines 40-67, column 5 lines 27-67 and column 7 lines 7-26).

Regarding claim 4, Carson as modified discloses first monitoring a first transfer rate of first read data during one of the read procedures, and further determining whether an anomaly region is present in the data segment based on the monitored first transfer rate; and in the event that the presence of an anomaly is not determined as a result of the first monitoring, second monitoring a second transfer rate of second read data during another of the read procedures, and further determining whether an anomaly region is present in the data segment based on the monitored second transfer rate (Carson: see figure 3, column 6 lines 45-55 and column 8 lines 15-32).

Regarding claim 5, Carson does not disclose in detail wherein calculating corresponding digital signatures for each of the multiple read data results comprises calculating a digital signature selected from the group consisting of MD2, MD4, MD5, Snefru, SHA, NIST DSA, Haval, N-Hash, and RIPE-MD digital signatures. However, Atkinson discloses calculating corresponding digital signatures for each of the multiple read data results comprises calculating a digital signature selected from the group consisting of MD2, MD4, MD5, Snefru, SHA, NIST DSA, Haval, N-Hash, and RIPE-MD digital signatures (Atkinson: column 4 lines 34-51, column 9 lines 44-58 and column 12 lines 46-67). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the process of creating the digital signature for each read operation of Atkinson to the system of Carson invention to provide the validation of data that has been stored in random access memory during periods when the data is

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susceptible of becoming corrupted, or in mission critical computer systems where tolerance for error is low (Atkinson: column 1 lines 16-22).

Regarding claim 7, Carson as modified discloses if none of the digital signatures are equal in value, determining the anomaly region to be present (Atkinson: column 4 lines 34-51, column 9 lines 44-58 and column 12 lines 46-67). The same motivation was utilized in claim 1 applied equally well to claim 7.

Regarding claim 10, this claim has limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

Regarding claim 11, this claim has limitations that is similar to those of claim 2, thus it is rejected with the same rationale applied against claim 2 above.

Regarding claim 12, this claim has limitations that is similar to those of claim 3, thus it is rejected with the same rationale applied against claim 3 above.

Regarding claim 13, this claim has limitations that is similar to those of claim 4, thus it is rejected with the same rationale applied against claim 4 above.

Regarding claim 14, this claim has limitations that is similar to those of claim 5, thus it is rejected with the same rationale applied against claim 5 above.

Regarding claim 16, this claim has limitations that is similar to those of claim 7, thus it is rejected with the same rationale applied against claim 7 above.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRANG DOAN whose telephone number is (571)272-0740. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Trang Doan/

Examiner, Art Unit 2431

/Syed Zia/

Primary Examiner, Art Unit 2431